

Presentation Outline

- ❖ Overview of GPHIN
- ❖ Critical Components of the GPHIN System
- ❖ GPHIN users
- ❖ GPHIN successes and potential use
- ❖ Questions?

Overview of GPHIN

GPHIN - Background

- ❑ GPHIN prototype was initially developed and deployed by Health Canada in collaboration with WHO - 1998
- ❑ GPHIN received financial assistance from Ted Turner's Foundation – Nuclear Threat Initiative
- ❑ GPHIN was developed with Nstein through a Collaborative Research Agreement
 - Nstein Technologies is based in Montreal, Canada
 - Their technology enables the processing, searching and retrieval of high volume multilingual unstructured information
- ❑ GPHIN was launched in November 2004, UN Headquarters

GPHIN Multilingual System

- An early-warning system for the early detection of potential public health threats worldwide.
- Monitors global media sources in multiple languages and gathers relevant information in near real-time and on a 24/7 basis.
 - ❖ Arabic, Chinese (Simplified & Traditional), English, Farsi, French, Portuguese, Russian and Spanish
- GPHIN is a Web based application
 - ❖ password protected

GPHIN Taxonomy

☑ Human diseases	–	Ebola
☑ Animal diseases	–	Streptococcus Suis
☑ Plant diseases	–	Asian soybean rust
☑ Other Biologics	–	new vaccine
☑ Chemical incidents	–	chlorine plume
☑ Radioactive exposures	–	Chernobyl disaster
☑ Unsafe products	–	Botulism & peanut butter
☑ Natural Disasters	–	tsunami, Dec 2004

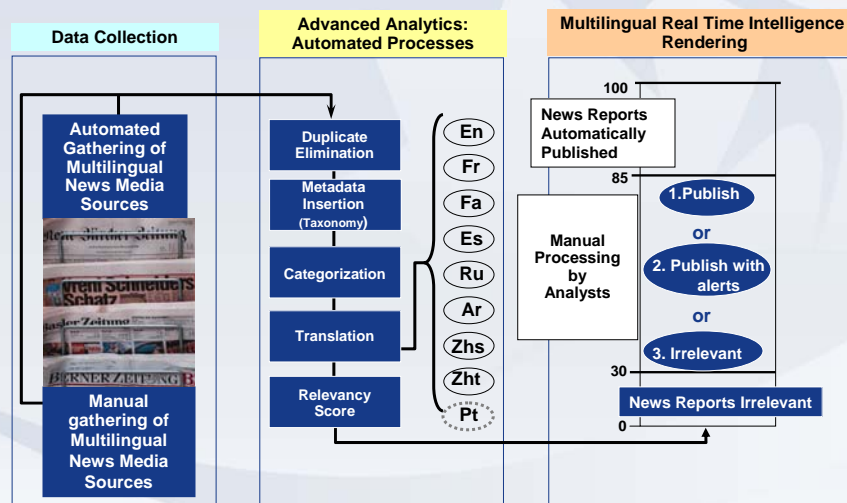
GPHIN's Versatility : Information for Action

- **Detect** potential public health threats
- **Estimate** magnitude of the public health threat
- **Determine** geographic distribution of public health threat
- **Identify** control and preventative measures considered and implemented
- **Monitor** concerns of the general public
- **Observe** situational politics

Critical Components of the GPHIN System

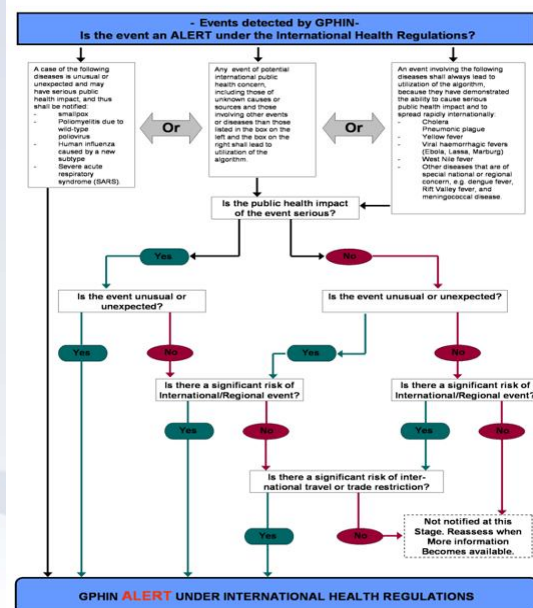
- ❖ Automated Processes
- ❖ Human Intervention

GPHIN Flow of Information



GPHIN Team (Total of 18) is composed of

- ❖ GPHIN Analysts (14)
- ❖ Surveillance Officer (1)
- ❖ Information Technology Advisor (1)
- ❖ Office Clerk (1)
- ❖ Manager (1)



GPHIN users

GPHIN Users - National

- ❖ Public Health Agency of Canada (PHAC)
- ❖ Canadian Food Inspection Agency (CFIA)
- ❖ Canadian Security Intelligence Service (CSIS)
- ❖ Royal Canadian Mounted Police (RCMP)

GPHIN Users - International

- ❖ World Health Organization (WHO)
- ❖ UN Food and Agriculture Organization (FAO)
- ❖ World Organization for Animal Health (OIE)
- ❖ European Commission (EC)
- ❖ European Centre for Disease Prevention and Control (ECDC)
- ❖ Centers for Disease Control and Prevention (CDC)

GPHIN Users – International Cont'd

- ❖ Government Institutions:

Ministries of Health, Military, Depts of
Agriculture, Chemical Safety...

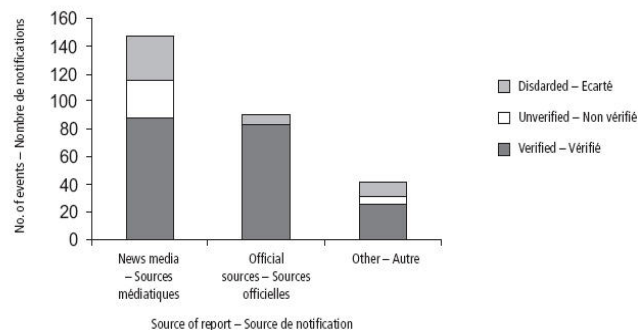
- ❖ Nations:

Algeria, Australia, France, Italy, Germany,
Netherlands, Switzerland, Wales, United
States.

GPHIN Successes and Potential Use

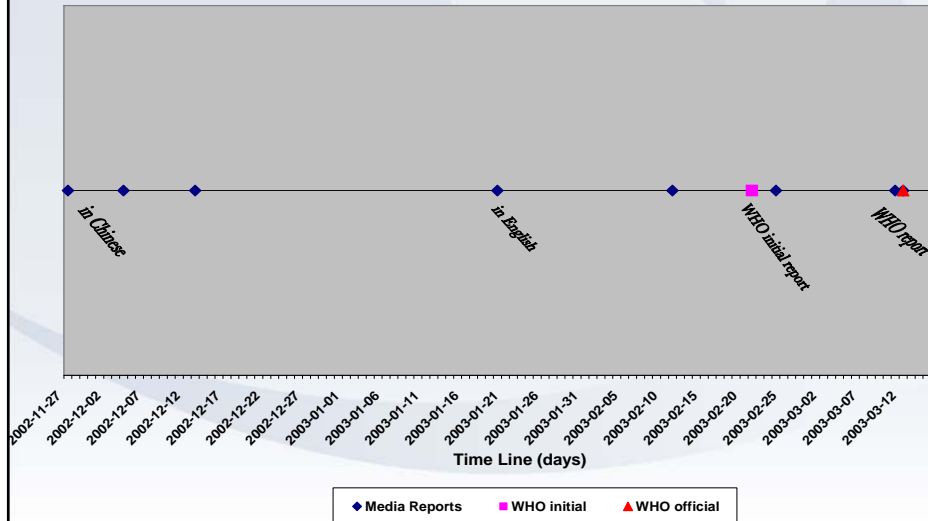
GPHIN's contribution in reporting disease events at WHO

Fig. 2 Verification status of events by initial reporting source, 1 January–31 December 2006 (n=279)
Fig. 2 Etat de la vérification des événements par source de signalement initial, 1^{er} janvier-31 décembre 2006 (n = 279)

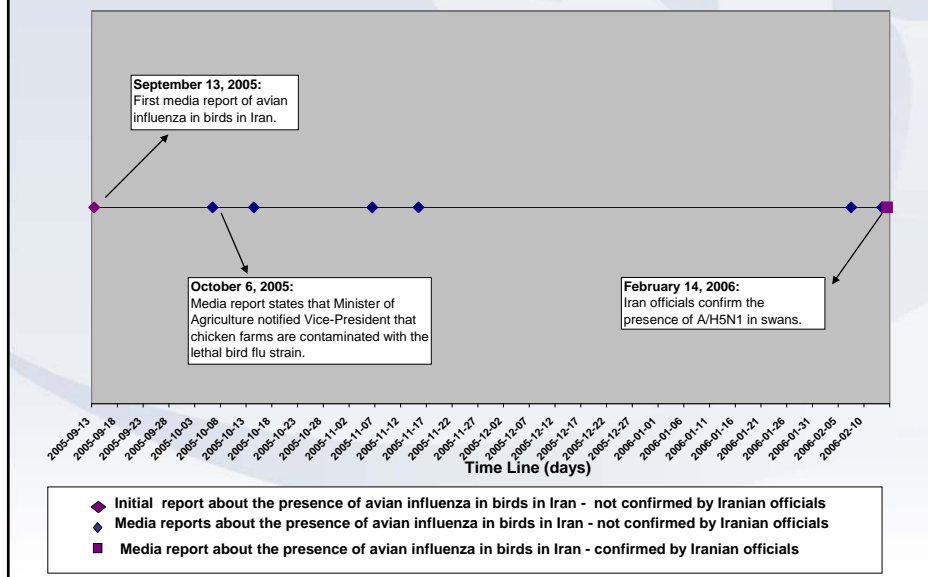


Source: Epidemic alert and verification: summary report 2006. Wkly Epidemiol Rec. 2007;82:111–6.

GPHIN's early detection of atypical pneumonia in China



GPHIN's early reporting of A/H5N1 virus in Iran



GPHIN tracking cross border events

NM health officials link salmonella to uncooked tomatoes

Unique ID: 3785890
 Provider ID: APRS000020080601e46100424
 News Provider: Factiva
 Relevancy Score: 42
 Gist Strength: 0
 Reviewed for Relevancy: Yes
 Publication Language: English
 Source: Associated Press Newswires
 Importance: Normal
 Received Date: 2008-06-01 17:40 GMT
 Publication Date: 2008-06-01 17:19 GMT
 Regions: Americas
 WHO Region: AMRO
 Place Name: United States
 Coordinates:
 UNITED STATES: 39°15' N, 100°55' W
 Taxonomy: Infectious Disease Human (H) , Nuclear (N) ,
 Biological (B) , Infectious Disease Animal (A) ,
 Environmental (E) , Chemical (C) , Disease - Other (O) ,
 Product (P)
 Terms "Hit": contracted , died , food , outbreak , salmonella

NM health officials link salmonella to uncooked tomatoes

SANTA FE (AP) - The state Department of Health says an outbreak of salmonella has been linked to uncooked tomatoes. The department announced Sunday that 31 people from seven New Mexico counties have contracted a strain of salmonella known as Salmonella St. Paul. Several people have been hospitalized; no one has died. The U.S. Food and Drug Administration is trying to pinpoint the exact source of the tomatoes. Health Secretary Alfredo Vigil says those who bought tomatoes from Wal-Mart in Las Cruces or Farmington, Lowe's in Las Cruces or Bashas' in Crownpoint since May 3 should not eat them uncooked. The Health Department says people began to be sick on May 6.

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GPHIN tracking cross border events (continued)

Canadian officials issue tomato alert

Unique ID: 3799129
 News Provider: Manual Feed
 Relevancy Score: 100
 Gist Strength: 0
 Reviewed for Relevancy: Yes
 Publication Language: English
 Source: Canwest News Service
 Importance: Normal
 Received Date: 2008-06-04 16:04 GMT
 Publication Date: 2008-06-04 16:00 GMT
 Regions: Americas
 WHO Region: AMRO
 Place Name: Canada
 Coordinates:
 CANADA: 55°71' N, 100°64' W
 Taxonomy: Infectious Disease Human (H)
 Terms "Hit": salmonellosis

Canadian officials issue tomato alert

OTTAWA - The Canadian Food Inspection Agency has issued an alert about an outbreak of salmonella contamination in certain types of uncooked tomatoes in the United States. There have been no reported illnesses in Canada, but CFIA is monitoring the situation with the U.S. Food and Drug Administration.

"If the investigation identifies a source of contamination and implicates tomatoes that may have entered distribution for export to Canada, the CFIA will take immediate action to advise the public and verify the effective removal of the product from the marketplace," the agency said in a news release.

Font: ****CFIA says food contaminated with salmonella may not look or smell spoiled. The agency recommends washing tomatoes thoroughly before eating them.

In young children, the elderly and people with weakened immune systems, salmonella poisoning may cause serious and sometimes deadly infections.

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GPHIN tracking cross border events (continued)

Canada finds first case linked to U.S. salmonella outbreak in returning traveller

Unique ID: 3911855
News Provider: Manual Feed
Relevancy Score: 100
Gist Strength: 0
Reviewed for Relevancy: Yes
Publication Language: English
Source: The Canadian Press
Importance: Normal
Received Date: 2008-07-03 22:27 GMT
Publication Date: 2008-07-03 21:32 GMT
Regions: Americas
WHO Region: AMRO
Place Name: Canada
Coordinates:
CANADA: 55°71' N, 100°64' W
Taxonomy: Biological (B)
Terms "Hit": salmonella

Canada finds first case linked to U.S. salmonella outbreak in returning traveller

TORONTO — Canadian authorities have found a case of Salmonella Saintpaul, the strain behind the massive salmonella outbreak in the United States.

The Public Health Agency of Canada says a person from Ontario was sickened by a strain of the bacteria with the same genetic fingerprint as the one responsible for the U.S. outbreak. The person, who became sick in early June, had just returned from travelling in the United States when the illness struck.

Agency epidemiologist Andrea Ellis says it seems clear the person became infected south of the border.

She says there's no indication that the contaminated food responsible for the U.S. outbreak has made its way to Canada.

The U.S. Centers for Disease Control says 922 cases have been confirmed in 40 states and the District of Columbia.

While earlier in the outbreak it was thought certain types of tomatoes were responsible, the investigation has been broadened to look at whether ingredients that go into fresh salsa could be the cause.

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